

## Claim Amendments

Deletions Double Bracketed (5 words or less) and/or Strikeout - Additions Underlined

**Please amend the claims as indicated below.**

**Claim 1. (Currently Amended)** A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly [[.]];

wherein the valve body is a one-piece structure.

**Claim 2. (Original)** A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes a flange that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by bolting.

**Claim 3. (Currently Amended)** ~~[[ A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes an exterior thread that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded engagement. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an exterior thread that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded engagement.

**Claim 4. (Currently Amended)** ~~[[ A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with sealing member between the isolation valve assembly and the opening-defining portion. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a sealing member between the isolation valve assembly and the opening-defining portion.

**Claim 5. (Currently Amended)** ~~[[ A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular ring on the isolation valve assembly. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular ring on the isolation valve assembly.

**Claim 6. (Currently Amended)** ~~[[ A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes at least one annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular groove on the isolation valve assembly. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular groove on the isolation valve assembly.

**Claim 7. (Currently Amended)** ~~[[ A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes at least one segmented annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular ring on the isolation valve assembly in a cam lock engagement. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one segmented annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular ring on the isolation valve assembly in a cam lock engagement.

**Claim 8. (Currently Amended)** ~~[[ A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes at least one segmented annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular groove in the isolation valve assembly in a cam lock engagement. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one segmented annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular groove in the isolation valve assembly in a cam lock engagement.

**Claim 9. (Original)** A valve as recited in claim 1, wherein the valve-stopping mechanism is removably mounted within the hollow valve body.

**Claim 10. (Currently Canceled)**

**Claim 12. (Currently Canceled)**

**Claim 13. (Currently Canceled)**

**Claim 14. (Currently Canceled)**

**Claim 15. (Currently Canceled)**

**Claim 16. (Currently Canceled)**



**Claim 17. (Currently Amended)** A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly [[.]];

wherein the valve body is a one-piece structure.

**Claim 18. (Original)** A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes a flange that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by bolting.

**Claim 19. (Original)** A valve as recited in claim 17, wherein the valve-stopping mechanism is installed into the hollow valve body through the isolation valve assembly.

**Claim 20. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes an exterior thread that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded engagement. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an exterior thread that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded engagement.

**Claim 21. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes an exterior thread and at least annular O-ring groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded and compressed rubber engagement. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an exterior thread and at least annular O-ring groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded and compressed rubber engagement.

**Claim 22. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes an exterior thread and at least one receiving O-ring surface that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded and compressed rubber engagement. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an exterior thread and at least one receiving O-ring surface that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded and compressed rubber engagement.

**Claim 23. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with sealing member between the isolation valve assembly and the opening-defining portion. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a sealing member between the isolation valve assembly and the opening-defining portion.

**Claim 24. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular ring on the isolation valve assembly. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular ring on the isolation valve assembly.

**Claim 25. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular groove on the isolation valve assembly. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular groove on the isolation valve assembly.

**Claim 26. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one segmented annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular ring on the isolation valve assembly in a cam lock engagement. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one segmented annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular ring on the isolation valve assembly in a cam lock engagement.



**Claim 27. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one segmented annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular groove in the isolation valve assembly in a cam lock engagement. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one segmented annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular groove in the isolation valve assembly in a cam lock engagement.

**Claim 28. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes an interior thread that functions as means for facilitating the connection under pressure of the valve-stopping mechanism to the opening-defining portion of the valve body by threaded engagement. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an interior thread that functions as means for facilitating the connection under pressure of the valve-stopping mechanism to the opening-defining portion of the valve body by threaded engagement.

**Claim 29. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes an interior thread that functions as means for restraining the connection under pressure of the valve-stopping mechanism to the opening-defining portion of the valve body by threaded engagement and as means for allowing at least one O-ring sealing surface in the opening-defining portion. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an interior thread that functions as means for restraining the connection under pressure of the valve-stopping mechanism to the opening-defining portion of the valve body by threaded engagement and as means for allowing at least one O-ring sealing surface in the opening-defining portion.

**Claim 30. (Currently Amended)** ~~[[ A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one actuating member which includes threads formed thereon and threadedly mounted in said opening-defining portion so that when activated moves into and out of engagement of the valve-stopping mechanism. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one actuating member which includes threads formed thereon and threadedly mounted in said opening-defining portion so that when activated moves into and out of engagement of the valve-stopping mechanism.

**Claim 31. (Currently Amended)** ~~[[ A valve as recited in claim 17, further comprising at least one segment-engaging element coupled to said segment and slidably mounted in the opening-defining portion of the valve body for engaging and locking said segment in position to restrain the valve-operating mechanism and at least one actuating member including threads formed thereon and threadedly mounted in said opening-defining portion for slidingly actuating said segment engaging member for moving said segment into and out of engagement of the valve-stopping mechanism. ]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

further comprising at least one segment-engaging element coupled to said segment and slidably mounted in the opening-defining portion of the valve body for engaging and locking said segment in position to restrain the valve-operating mechanism and at least one actuating member including threads formed thereon and threadedly mounted in said opening-defining portion for slidingly actuating said segment engaging member for moving said segment into and out of engagement of the valve-stopping mechanism.